REMARKS

Claims 1-4, 9, 10, 13 and 15-19 have been amended to more clearly define the invention.

The claims have been amended to more clearly recite that the claimed systems involve *"accumulating"* in a database, "object identifier code mapping information from identifier codes derived from data representing messages supporting commercial transactions" such as messages "effecting commercial transactions including purchase or sale of goods". Support for this and the other amendments is found in the existing claims and in the Application description on page 8 lines 18-26, page 13 lines 7-10 and other places.

I. Objection to Claims

Claim 10 is objected to as being labeled amended yet contains no amendments.

This was a typographical error. Claim 10 is amended herein and is correctly identified as being "Currently amended". Consequently, this ground of objection is no longer deemed to apply and its withdrawal is respectfully requested.

II. Rejection under 35 U.S.C. 102(e)

Claims 1, 2, 4, 5, 7, 9-12 and 14-20 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application 20020059204 – Harris. These claims, as amended, are deemed to be patentable for the reasons given below.

Amended claim 1 recites a method for "determining identifier codes for an object associated with a plurality of identifier codes by a corresponding plurality of entities" comprising "receiving a first message supporting a commercial transaction and including at least a first identifier code identifying an object, said first identifier code being associated with a first entity; extracting said first identifier code from said received first message; accumulating, in a first database, object identifier code mapping information from identifier codes derived from data representing messages supporting commercial transactions and sent between entities desiring to effect a commercial transaction; generating a plurality of messages incorporating said extracted first identifier code, said plurality of messages being for initiating a search

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of a plurality of different identifier code databases including said first database, said databases linking said first identifier code associated with said first entity to corresponding different identifier codes identifying said object, said different identifier codes being associated with entities different to said first entity; and receiving said different identifier codes corresponding to said first identifier code in response to communicating said plurality of messages". These features are not shown (or suggested) in Harris.

The method of amended claim 1 dynamically translates a code or identifier used by a first entity (such as a first company) to identify an object such as a product, service or resource, to multiple corresponding codes or identifiers used by another entity (such as other companies) using multiple code mapping databases (Application page 2 lines 15-17). Specifically, the method involves "generating a plurality of messages incorporating" an "extracted first identifier code, said plurality of messages being for initiating a search of a plurality of different identifier code ---databases" including a "first database" derived by "accumulating...object identifier code mapping information from identifier codes derived from data representing messages supporting commercial transactions and sent between entities desiring to effect a commercial transaction".

The system addresses the problems involved in effecting commercial transactions that arise through attempted integration of disparate computer systems where a retailer, one or more distributors and a manufacturer employ different identifier codes for the same part, for example (Application page 1 lines 15-30). The claimed system "alleviates the need to manually synchronize different identifier code mapping databases and files" (Application page 6 lines 17-19). Further, multiple identifier code mapping databases "are advantageously updated using received identifier codes". The system advantageously **accumulates**, in a first database, object identifier code mapping information from identifier codes **derived from** data representing messages supporting **commercial transactions** and sent between entities desiring to effect a commercial transaction". The system also generates a "plurality of messages incorporating said extracted first identifier code, said plurality of messages being for initiating a search of a plurality of different identifier code databases including said **first database**". These features are not shown or suggested in Harris. The claimed system as shown in Figure 12 of the Application, for example, advantageously translates identifiers WITHIN messages as they pass through an interface processor (900), WITHOUT any action or knowledge thereof by either the sending system (700) or receiving system (710). This feature provides transparent

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and automated mapping of identifiers, WITHOUT requiring changes to either a sending or receiving application.

The customized query responses of paragraph 0031 of Harris relied on in the Rejection on page 2 are NOT (and do not suggest) "messages supporting *commercial transactions*". Commercial transaction messages have an entirely different function and purpose than a query used to interrogate a dictionary discussed in para. 0031. Further, queries of Harris para. 0031 are NOT "messages supporting commercial transactions and sent between entities desiring to **effect** a commercial **transaction**". The query of Harris is sent by a user "for performing a search of data sources" (Harris para. 0003 and 0007 first two lines) not to effect commercial transactions. Further, although Harris mentions in para. 0076 that a user may purchase search results or search results can be accompanied by a URL used to order a product, there is no suggestion in Harris of deriving "**identifier codes**" from messages effecting commercial transactions. There is also no suggestion in para 0013 or para. 0076 of "accumulating, in a first database, object identifier code mapping information from identifier codes derived from data representing messages supporting commercial transactions and sent between entities desiring to effect a commercial transaction". A message comprising search results and a URL used to order a product is NOT a message able "**effect** a commercial **transaction**" and in any event is NOT processed to (and does not suggest processing to) derive "identifier codes in the Harris system.

The system of Harris as shown in Figure 1 actively surveys a data source, depicted as a database engine (20), in order to build a mapping dictionary. This requires such databases to support queries from surveyor (102), which requires work on the database engine (20), access to the database engine, and detailed knowledge of the layout of the database (Harris paragraph 0029). The active surveying and communications involved in the Harris system are burdensome and employ processing, communication and bandwidth resources. The necessary connections between units 102 and 20 in Harris present a security risk and burden database engine 20. In contrast, the claimed system does not require such an active surveying connection to databases in order to build a mapping dictionary, because it is able to *passively* survey *messages* supporting *commercial transactions* in communication on a network to build a mapping dictionary.

Thus, the claimed system, by "accumulating, in a first database, object identifier code mapping information from identifier codes derived from data

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representing messages supporting commercial transactions and sent between entities desiring to effect a commercial transaction", advantageously does not require an active connection between units like 102-20 in Harris or a tight linkage to a database record layout (as in Harris) and does not incur an associated security risk. Further, the surveying connection required by Harris results in the need to build, maintain, and effect customized queries and results (110, 112 Figure 1). The claimed system does not need to interact with either the sender (700) or receiver (710) databases as data sources and so is not burdened by the need to build and communicate such queries. Although, the claimed system links an external mapping database, it is able to function using the "first database" created by "accumulating...object identifier code mapping information from identifier codes **derived from** data representing messages supporting commercial transactions". This feature is not shown or suggested in Harris.

In addition it would not be obvious to modify the system of Harris to -dynamically accumulate object identifier code mapping information from message data since Harris provides no problem recognition, reason or other motivation for incorporating such a feature. Rather, the Harris more cumbersome system involving actively surveying data sources eliminates the need to the dynamic accumulation system though at a substantial practical cost. Consequently withdrawal of the rejection of claims 1 under 35 USC 102(e) is respectfully requested.

Amended dependent claim 2 is considered to be patentable based on its dependence on claim 1. Claim 2 is also considered to be patentable because Harris does not show (or suggest) "accumulating, in a first database, object identifier code mapping information from identifier codes derived" from "messages supporting commercial transactions and sent between entities desiring to **effect** a commercial **transaction**" that "comprise **purchase** or sale of goods related **transactions** and including the activity of updating said plurality of databases to incorporate said different identifier codes identifying said object". Harris as explained in connection with claim 1, does not discuss, mention or contemplate "accumulating, in a first database, object identifier code mapping information from identifier codes derived" from "messages supporting commercial transactions and sent between entities desiring to **effect** a commercial **transaction**" that "comprise **purchase** or **sale** of **goods** related **transactions**".

Amended dependent claim 4 is considered to be patentable based on its dependence on claims 1 and 3. Claim 4 is also considered to be patentable because

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Harris does not show (or suggest) "communicating said plurality of messages to applications useable for initiating a search of said plurality of different remote identifier code databases and wherein said mapping information supports translation of an identifier code within a message as the message passes through an interface processor **without any action** affecting the translation by either a **sending** system or **receiving system**". The claimed system as shown in Figure 12 of the Application, for example, advantageously translates identifiers WITHIN messages as they pass through an interface processor (900), WITHOUT any action or knowledge thereof by either the sending system (700) or receiving system (710). This feature provides transparent and automated mapping of identifiers, WITHOUT requiring changes to either a sending or receiving application. These features are nowhere contemplated or suggested in Harris. Harris is concerned with "performing a search of data sources" (Harris para. 0003 and 0007 first two lines) and not effecting commercial transactions. The system of Harris as shown in Figure 1 actively surveys a data source, depicted as a database engine (20), in order to build a mapping dictionary which is a burdensome and processing resource intensive task. In contrast the claimed arrangement provides transparent and automated mapping of identifiers, "**without any action** affecting the translation by either a **sending** system or **receiving system**". These feature promote efficient performance of commercial transactions and are not suggested in Harris. Harris also fails to recognize the specific problem they address or provide any other motivation for including the claimed features.

Dependent claim 5 is considered to be patentable based on its dependence on claim 1.

Amended dependent claim 7 is considered to be patentable based on its dependence on claim 1. Claim 7 is also considered to be patentable because Harris in para. 0013, 0052, 0053, 0058, 0064 and 0074-0075 contrary to the Rejection suggestion, does not show (or suggest) the feature combination of claim 7 involving "deriving said first identifier code and a corresponding third identifier code identifying said object from said received first message" supporting a *"commercial transaction"*, and "said generating activity generates a plurality of messages incorporating said derived first and third identifier codes". Harris as explained in connection with claim 1, does not discuss, mention or contemplate "accumulating, in a first database, object identifier code mapping information" by "deriving said first identifier code and a corresponding third identifier code identifying said object from said received first message" supporting a *"commercial transaction"*. As previously explained, the claimed arrangement advantageously translates identifiers WITHIN

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messages as they pass through an interface processor (900), WITHOUT any action or knowledge thereof by either the sending system (700) or receiving system (710). These features are nowhere suggested in Harris.

Amended dependent claim 9 is considered to be patentable based on its dependence on claim 1 and for reasons given in connection with claims 3 and 4. Claim 9 is also considered to be patentable because Harris does not show (or suggest) "accumulating, in a first database, object identifier code mapping information" that "supports translation of an identifier code within a message as the message passes through an interface processor without any action affecting the translation by either a sending system or receiving system" by deriving "identifier codes" from "data representing messages supporting commercial transactions and sent between entities desiring to effect a commercial transaction".

Amended dependent claim 10 is considered to be patentable based on its dependence on claim 1 and for reasons given in connection with claims 3 and 4. Claim 10 is also considered to be patentable because Harris does not show (or suggest) "accumulating, in a first database, object identifier code mapping information" by deriving "identifier codes" from "data representing messages "effecting commercial transactions including purchase or sale of goods".

Dependent claim 11 is considered to be patentable based on its dependence on claim 1.

Dependent claim 12 is considered to be patentable based on its dependence on claim 1.

Dependent claim 14 is considered to be patentable based on its dependence on claim 1. Claim 14 is also considered to be patentable because Harris does not show (or suggest) the method of claim 14 in which a "first message" "supporting a commercial transaction" is "received from an application initiating a transaction and including the activity of, forwarding a composite message to a destination application in support of said transaction, said composite message being created including information derived from said first message and including one of said different identifier codes". As previously explained in connection with claim 1, the query message of Harris in para. 0013 is NOT a message "supporting a commercial transaction". Further, the Further, although Harris mentions in para. 0076 that a user may purchase search results or search results can be accompanied by a

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URL used to order a product, there is no suggestion in Harris of deriving "identifier codes" from messages effecting commercial transactions. There is also no suggestion in para. 0013 or para. 0076 of "accumulating, in a first database, object identifier code mapping information from identifier codes derived from data representing messages supporting commercial transactions and sent between entities desiring to effect a commercial transaction".

Amended independent claim 15 is considered to be patentable for reasons given in connection with claim 1 and claim 9.

Amended independent claim 16 is considered to be patentable for reasons given in connection with claim 1. Claim 16 is also considered to be patentable because Harris does not show (or suggest) "receiving a first message supporting a commercial transaction and including at least a first identifier code identifying an object, said first identifier code being associated with a first entity; deriving said first identifier code from said received first message; accumulating, in a first database, object identifier code mapping information from identifier codes derived from data representing messages supporting commercial transactions and sent between entities desiring to effect a commercial transaction; generating a plurality of messages incorporating said derived first identifier code, said plurality of messages being for initiating searches of said first database and a remote identifier code database, said databases mapping said first identifier code associated with said first entity to corresponding different identifier codes identifying said object, said different identifier codes being associated with entities different to said first entity; receiving said different identifier codes corresponding to said first identifier code in response to communicating said plurality of messages; and updating said remote identifier code databases to incorporate corresponding received different identifier codes identifying said object".

As previously explained in connection with claim 1, the Harris system actively surveys a data source, depicted as a database engine (20), in order to build a mapping dictionary. This requires such databases to support queries from surveyor (102), which requires work on the database engine (20), access to the database engine, and detailed knowledge of the layout of the database (Harris paragraph 0029). In contrast, the claimed system does not require such an active surveying connection to databases in order to build a mapping dictionary, because it builds a mapping dictionary by "accumulating, in a first database, object identifier code mapping information from identifier codes derived from data representing messages supporting

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commercial transactions and sent between entities desiring to effect a commercial transaction". Neither these advantages nor the features of the claim 16 arrangement that provide these advantages are suggested in Harris.

Amended independent claim 17 is considered to be patentable for reasons given in connection with claim 1.

Amended dependent claim 18 is considered to be patentable based on its dependence on claim 17. Claim 18 is also considered to be patentable because Harris does not show (or suggest) the feature combination of claim 18 involving "generating a record of provision of said different identifier codes for use in at least one of, (a) billing, and (b) creating a transaction record". Contrary to the Rejection statements made on page 13 the Harris log file of para. 0055 provides "data pertaining to received query information, customized search queries, generated search results, query identity, data source identity, time of query, etc" and does NOT generate a record of provision of said different identifier codes for use in at least one of, (a) billing, and (b) creating a commercial transaction record". There is no mention of billing in para. 0076. The Rejection statement that the feature combination involving "generating a record of provision of said different identifier codes for use in at least one of, (a) billing, and (b) creating a commercial transaction record" is purely speculation.

Amended independent claim 19 is considered to be patentable for reasons given in connection with claims 1, 2 and 16.

Dependent claim 20 is considered to be patentable based on its dependence on claim 19. Consequently withdrawal of the rejection of claims 1, 2, 4, 5, 7, 9-12 and 14-20 under 35 USC 102(e) is respectfully requested.

III. Rejection under 35 U.S.C. 103(a)

Claim 3 is rejected under 35 U.S.C. 103(a) as being anticipated by U.S. Patent Application 20020059204 – Harris or in the alternative as being unpatentable over U.S. Patent Application 20020059204 – Harris in view of "SQLData SOAP Server" by SQLData Systems Inc. (SQLData). This claim, as amended, is deemed to be patentable for the reasons given below.

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Amended dependent claim 3 is considered to be patentable based on its dependence on claim 1. Claim 3 is also considered to be patentable because Harris does not show (or suggest) the feature combination of claim 3 in which "said mapping information supports translation of an identifier code within a message as the message passes through an interface processor". This feature is not shown or suggested in Harris with or without SQLData for reasons given in connection with claims 1, 2 and 4.

IV. Rejection under 35 U.S.C. 103(a)

Claim 6, 8 and 13 are rejected under 35 U.S.C. 103(a) as being anticipated by U.S. Patent Application 20020059204 – Harris or in the alternative as being unpatentable over U.S. Patent Application 20020059204 – Harris. These claims, as amended, are deemed to be patentable for the reasons given below.

Dependent claim 6 is considered to be patentable based on its dependence on claims 1 and 5. Claim 6 is also considered to be patentable because Harris does not show (or suggest) the feature combination of claim 6 in which "said prioritized search of said database searches first for a purchaser product identifier code identifying said object and subsequently for a manufacturer product identifier code identifying said object".

Dependent claim 8 is considered to be patentable based on its dependence on claims 1 and 7. Claim 8 is also considered to be patentable because Harris does not show (or suggest) the feature combination of claim 8 including "deriving said first identifier code and a corresponding third identifier code identifying said object from said received first message" supporting a *"commercial transaction"* and "said first identifier code comprises a purchaser product identifier code and said third identifier code comprises a manufacturer product identifier code and a message of said plurality of messages initiates a prioritized search of a database involving searching first for said purchaser product identifier code and subsequently for a manufacturer product identifier code". Harris in para. 0013, 0029, 0058 and 0074-0075 contrary to the Rejection suggestion, does not show (or suggest) the feature combination of claim 8, involving "deriving said first identifier code and a corresponding third identifier code identifying said object from said received first message" supporting a *"commercial transaction"*, and "said generating activity generates a plurality of messages incorporating said derived first and third identifier codes".
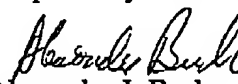
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Harris as explained in connection with claim 1, does not discuss, mention or contemplate "accumulating, in a first database, object identifier code mapping information" by "deriving said first identifier code and a corresponding third identifier code identifying said object from said received first message" supporting a *"commercial transaction"*. The claimed arrangement advantageously translates identifiers WITHIN messages as they pass through an interface processor (900), WITHOUT any action or knowledge thereof by either the sending system (700) or receiving system (710). These features are nowhere suggested in Harris.

Amended dependent claim 13 is considered to be patentable based on its dependence on claim 1. Claim 13 is also considered to be patentable because Harris does not show (or suggest) the feature combination of claim 13 in which "messages supporting commercial transactions are messages effecting **commercial transactions** including **purchase** or **sale** of goods and said mapping information supports translation of an identifier code within a message as the message passes through an interface processor **without any action** affecting the **translation** by either a **sending** system or **receiving** system and at least one of said first and said different identifier codes comprise one of (a) a Universal Product Code and (b) a code associated with a bar code". This because of reasons previously given in connection with claims 1, 3 and 4.

In view of the above amendments and remarks, Applicants submit that the Application is in condition for allowance, and favorable reconsideration is requested.

Respectfully submitted,

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Alexander J. Burke
Reg. No. 40,425

Siemens Corporation,
Customer No. 28524
Tel. 732 321 3023
Fax 732 321 3030

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